



**6560-50-P**

**ENVIRONMENTAL PROTECTION AGENCY**

**40 CFR Part 258**

**[EPA-HQ-RCRA-2015-0126; FRL-9936-10-OSWER]**

**RIN-2050-AG75**

**Revision to the Research, Development and Demonstration Permits Rule for Municipal Solid Waste Landfills**

**AGENCY:** Environmental Protection Agency.

**ACTION:** Proposed rule.

**SUMMARY:** The Environmental Protection Agency (EPA) is proposing to revise the maximum permit term for Municipal Solid Waste Landfill (MSWLF) units operating under Research, Development and Demonstration (RD&D) permits. The RD&D permit program, which began in 2004, allows landfill facilities to utilize innovative and new methods that vary from the prescribed run-on control systems, liquids restrictions, and final cover criteria if these systems are determined by the Director of states with EPA-approved RD&D programs, as defined in 40 CFR 258.2, to meet the criteria in 40 CFR 258.4. The current rule limits permits for these units to 3 years each, renewable 3 times for a total permit term of 12 years. If finalized, this rule will allow the Director of an approved State to increase the number of permit renewals to 6, for a total permit term of up to 21 years. The EPA is not proposing any other changes to the existing MSWLF RD&D permit program at this time.

**DATES:** Comments on this proposed rule must be received on or before **[insert date 30 days after date of publication in the Federal Register.]**

**ADDRESSES:** Submit your comments, identified by Docket ID No. **EPA-HQ-RCRA-2015-0126** to the *Federal eRulemaking Portal*: <http://www.regulations.gov>. Follow the online instructions for submitting comments. Once submitted, comments cannot be edited or withdrawn. The EPA may publish any comment received to its public docket. Do not submit electronically any information you consider to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Multimedia submissions (audio, video, etc.) must be accompanied by a written comment. The written comment is considered the official comment and should include discussion of all points you wish to make. The EPA will generally not consider comments or comment contents located outside of the primary submission (i.e. on the web, cloud, or other file sharing system). For additional submission methods, the full EPA public comment policy, information about CBI or multimedia submissions, and general guidance on making effective comments, please visit <http://www2.epa.gov/dockets/commenting-epa-dockets>.

**FOR FURTHER INFORMATION CONTACT:** Craig Dufficy, Materials Recovery and Waste Management Division of the Office of Resource Conservation and Recovery (mail code 5304P), U.S. Environmental Protection Agency, 1200 Pennsylvania Avenue, NW, Washington, DC 20460; telephone: 703-308-9037; e-mail: [Dufficy.craig@epa.gov](mailto:Dufficy.craig@epa.gov).

## **SUPPLEMENTARY INFORMATION:**

### **I. GENERAL INFORMATION**

#### *A. Does this action apply to me?*

Entities potentially affected by this proposal are public or private owners or operators of MSWLFs. These entities include:

Category	Example of affected entities
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State Governments	Regulatory agencies and agencies operating landfills.
Industry	Owners or operators of municipal solid waste landfills.
Municipalities, including Tribal Governments	Owners or operators of municipal solid waste landfills.

The affected entities may also fall under the North American Industry Classification System (NAICS) code 924110, Sanitation engineering agencies, government; or 562212, Solid Waste Landfill. This list of sectors is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be regulated by this action. This table lists the types of entities that the EPA believes could potentially be regulated by this action. Other types of entities not listed in the table could also be regulated. To determine whether your entity is regulated by this action, you should carefully examine the applicability criteria found in 40 CFR part 258 and the Research, Development, and Demonstration Permits for Municipal Solid Waste Landfills final rule published in the Federal Register at 69 FR 13242, March 22, 2004, (“2004 RD&D rule”). If you have questions regarding the applicability of this action to a particular entity, consult the person listed in the FOR FURTHER INFORMATION CONTACT section.

*B. What action is the agency taking?*

The EPA is proposing to revise the maximum permit term for MSWLF units operating under RD&D permits. In effect, this proposed rule, if finalized, would allow the Directors of a states with EPA-approved RD&D programs to increase the number of 3-year permit renewals from 3 to 6, for a total permit term of 21 years.

The basis for the proposed extension of the permit period to up to 21 years is to provide more time to support research into the performance of bioreactors, alternative covers and run-on systems. The EPA believes the period of 21 years strikes a balance between providing more time

for projects to continue operations as research facilities, while providing enough time for the EPA to consider making permanent changes to the Part 258 MSWLF regulations.

*C. What is the agency's authority for taking this action?*

The authority for this proposal is sections 1008, 2002(a), 4004, 4005(c), 4010 and 8001(a) of the Resource Conservation and Recovery Act of 1976 (RCRA), as amended, 42 U.S.C. 6907, 6912(a), 6944, 6945(c), 6949a, 6981(a).

*D. What are the anticipated effects and benefits of this action?*

The anticipated effect of this proposed action, when final, is to provide the Director of an approved State the ability to issue renewals to existing RD&D permits, as well as new RD&D permits, for up to 21 years instead of 12 years. During this time, the EPA will continue to evaluate data from these facilities. The universe of facilities presently covered by this action is approximately 30 facilities currently operating with RD&D permits, and one on tribal lands. Additional facilities may also continue to seek an RD&D permit after this action is finalized. The EPA has no information with which to estimate whether or not, nor how many, new facilities will seek RD&D permits. Owners/operators operating under existing RD&D permits are not expected to incur any new costs as a result of this proposed rule. The annual costs for ongoing recordkeeping and annual reporting requirements are estimated at \$2,410 per facility.

It is important to note that applying for a RD&D permit is voluntary. This proposed action would merely allow the Director of an approved State to increase the number of extensions of the permit period for existing facilities, or offer more extensions of the permit term for new facilities, for those owners and operators who choose to participate in this research program; it would not impose any new regulatory burden. Increasing the possible number of extensions of the RD&D permit term may benefit current owners and operators of RD&D units by providing

additional time to recover their costs, if the Director of an approved State chooses to extend existing permits. For example, data from one RD&D permitted facility shows a projected increase of 3% in the rate of return for 20 years compared to 12 years.<sup>1</sup>

Increasing the possible number of extensions of RD&D permit terms will provide more time for the EPA to collect additional data on the potential benefits of the approaches being taken under these RD&D permits. These potential benefits include: decreased costs for leachate treatment due to leachate recirculation in bioreactors; increased revenue from the sale of landfill gas for use as a renewable source of fuel; decreased risk due to a reduction in the transportation of leachate for treatment; accelerated production and capture of landfill gas for use as a renewable fuel; and, accelerated stabilization, and corresponding decreased post-closure care activities, for facilities as a result of the accelerated decomposition of waste.

## **II. BACKGROUND**

Under Subchapter IV of RCRA, 42 U.S.C. 6941-6949a, the EPA has promulgated minimum national standards for MSWLFs at 40 CFR part 258. See 56 FR 50978 (October 9, 1991). RCRA also directs the EPA to encourage research and development for, among other things, the development and application of new and improved methods of collecting and disposing of solid waste. 42 U.S.C. 6981(a).

The initial MSWLF regulations addressed seven basic areas: location restrictions; operation; design; groundwater monitoring; corrective action; closure and post-closure care; and financial assurance. These MSWLF landfill regulations focused on dry-tomb landfills to minimize the possibility of groundwater contamination from the production and subsequent leakage of leachate. After the promulgation of those standards, the EPA became aware that landfill technology had advanced sufficiently that some alternative designs and operations could benefit

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<sup>1</sup> See docket # EPA-HQ-RCRA-2015-0126 for supporting documentation.

from further study through research and demonstration projects. For example, some of these methods, particularly the addition of liquids and leachate recirculation, could accelerate biodegradation and provide additional potential benefits. These include:

- Acceleration of landfill gas generation which can be collected as a source of renewable fuel.
- Minimization of leachate treatment requirements during the operational life of the landfill.
- More rapid reduction in concentration of leachate constituents of concern, thereby limiting the corresponding post-closure activities for leachate control.
- An increase in the rate of landfill settlement resulting in the more efficient use of permitted landfill capacity.

As a means to advance innovation in landfill design, in 2000 the EPA selected four landfills to participate in its Project XL program. The landfills are located in Buncombe County, North Carolina; Yolo County, California; King George County, Virginia; and the Maplewood facility in Amelia Country, Virginia.

In addition to Project XL, in 2001 the EPA began using Cooperative Research and Development Agreements (CRADAs) to promote collaborative research between federal and non-federal scientists as an additional means to explore the addition of liquids to landfills to promote faster biodegradation and stabilization. Bioreactor landfill sites operating with CRADAs include the Outer Loop landfill in Louisville, Kentucky; and the Polk County landfill in Florida.

Subsequently, in 2004, the EPA amended 40 CFR part 258 MSWLF regulations to create a broader RD&D research program. The 2004 RD&D rule, which amended § 258.4 enabled the

Director of an approved State to allow RD&D projects with variances to specific provisions of the MSWLF criteria, including variances from operating criteria in part 258 subpart C with respect to run-on controls (§ 258.26(a)(1)) and the liquids restrictions in § 258.28(a). In addition, the rule allows an additional variance for the final cover requirements set forth in the closure criteria in §§ 258.60(a)(1), (a)(2) and (b)(1). The 2004 RD&D rule limits the duration of the initial permit to 3 years. The permit can be renewed for up to three additional 3-year terms, for a total of 12 years. More information on the RD&D rule can be found in the final rule preamble. See 69 FR 13242, March 22, 2004.

As of March 2014, there were 30 active RD&D projects in 11 approved states and one project on tribal lands.<sup>2</sup> The maximum permit period for the first of these bioreactors is coming to an end, and the EPA proposes to allow the Director of an approved State to continue to extend the permit period for up to a total of 21 years to allow for continued research.

*A. What the EPA is proposing*

The EPA is proposing to allow Directors of states with EPA-approved RD&D programs to increase the maximum term for RD&D permits from 12 to 21 years at 40 CFR 258.4(e)(1), to provide more time to support research into the performance of bioreactors, alternative covers and run-on systems. In effect, this proposed rule, if finalized, would allow the Director of an approved State to increase the number of permit renewals from three to six. The EPA is not proposing any other changes to the RD&D permit program at this time. The EPA is not reopening, nor will it respond to comments on, any other provision of the existing RD&D rule or MSWLF criteria in 40 CFR part 258.

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<sup>2</sup> Permitting of Landfill Bioreactor Operations: Ten years After the RD&D Rule, EPA document number EPA/600/R-14/335.

Separately from this proposal, the EPA expects to publish an Advanced Notice of Proposed Rulemaking (ANPRM) seeking comment on revising other sections of the MSWLF (40 CFR part 258) criteria to authorize bioreactor operation (and other changes to the national criteria) on a permanent basis. Interested parties will have an opportunity to comment on broader issues relating to bioreactor operation during the public comment period on that ANPRM.

*B. Basis for this proposal*

In the 2004 RD&D final rule, the EPA made clear its intention that MSWLF RD&D permits be of limited duration, yet also provide data to support future rulemaking. This proposal is intended to further these dual goals. Although the EPA does not expect that all RD&D permits will necessarily extend to the full permit term, the EPA has since learned that the 12-year time limit may not be sufficient to realize potential benefits in all cases. Thus, extending the permit period for up to 21 years will provide more time to collect data on potential benefits and any problems without making the permit period so long as to be open-ended.

Extending the maximum permit term will help continuing efforts to collect data at existing RD&D units. If the EPA does not take this action, owners and operators using existing RD&D permits would need to make significant modifications to their disposal units or cease operation altogether, before reaching the end of their normal operations or closure. Because of the potential environmental benefits that may be derived from bioreactors, alternative cover designs, and run-on systems, the EPA believes that it is important to extend the maximum permit period to 21 years to provide more time to characterize the performance of RD&D projects without making the permit period so long as to be open-ended.

The EPA also wishes to enhance the economic feasibility to build and operate bioreactors or final cover variances in the future, and to thereby provide additional sources of data. In addition,

the EPA has heard from stakeholders that the current 12-year maximum permit period is an insufficient length of time for potential owners and operators of bioreactors to recoup their initial investment. These stakeholders have indicated limiting the permit period to 12 years has the unintended consequence of discouraging the development of bioreactors.

### *C. Implementation of this proposal*

This proposal does not require states with EPA-approved RD&D programs to modify their solid waste permit programs. Since this proposed change to the RD&D rule provides more flexibility than existing federal criteria, states are not required to amend existing solid waste permit programs that have been determined by the EPA to be adequate under 40 CFR part 239. States will have the option to amend their programs once this proposal is finalized. At the same time, the RD&D rule (including this proposed revision of the maximum permit term) is not self-implementing and states are required to adopt the RD&D rule and obtain EPA approval for their RD&D program in order to issue a RD&D permit. States previously approved to issue RD&D permits that wish to increase the total length of time for which RD&D permits can be issued will need to notify the EPA in accordance with 40 CFR part 239. States with EPA-approved solid waste permit programs that have not previously sought approval for an RD&D program and now wish to do so will need to apply to EPA for approval of an RD&D program, including approval of the longer time period allowed by this proposal. Any state without an EPA-approved solid waste permit program may submit an application to the EPA for a determination of adequacy under 40 CFR part 239 and may include a request for approval of the RD&D permit provisions reflecting the longer time period allowed by this proposal. For municipal solid waste landfill units located in Indian Country, the EPA intends to consider the longer maximum permit term in this proposal when issuing or modifying any site-specific RD&D rule. The EPA has previously

issued draft guidance on the site-specific flexibility request process in Indian Country. *See Site-specific Flexibility Requests for Municipal Solid Waste Landfills in Indian Country*, EPA 530-R-97-016, August 1997.

### **III. STATUTORY AND EXECUTIVE ORDER REVIEWS**

#### *A. Executive Order 12866: Regulatory Planning and Review and Executive Order 13563: Improving Regulation and Regulatory Review*

This action is not a significant regulatory action and was therefore not submitted to the Office of Management and Budget (OMB) for review.

#### *B. Paperwork Reduction Act (PRA)*

This action does not impose any new Information Collection Request (ICR) burden under the PRA. OMB has previously approved the information collection activities contained in the existing regulations and has assigned OMB control numbers 2050-0152 and 2050-0122. The purpose of this action is to extend the maximum allowable permit period for this program and this change to the RD&D program itself does not impose any additional reporting requirements. The OMB has previously approved the information collection activities contained in the existing regulations in two different, applicable ICRs. The ICRs affected by this proposal are for 40 CFR part 239, Requirements for State Permit Program Determination of Adequacy and part 258, MSWLF Criteria. The OMB has reviewed the ICR for part 239 (ICR# 1608.07, OMB# 2050-0152.) The EPA will request comments under the ICR review process from states that plan to make these revisions so that the EPA can better understand the expected burden that would be incurred by states who wish to make these changes. In addition, the EPA will also be requesting information from MSWLF owners/operators on the reporting burden that they would incur under an extended permit term provided in accordance with this proposal under the part 258, MSWLF

criteria ICR (ICR# 1381.09, OMB# 2050–0122) when that review process begins. This process is scheduled to be completed in June 2016.

*C. Regulatory Flexibility Act (RFA)*

I certify that this action will not have a significant economic impact on a substantial number of small entities under the RFA. In making this determination, the impact of concern is any significant adverse economic impact on small entities. An agency may certify that a rule will not have a significant economic impact on a substantial number of small entities if the rule relieves regulatory burden, has no net burden or otherwise has a positive economic effect on the small entities subject to the rule. This proposed rule will not create any additional burden for small entities. Small entities are not required to take any action as a consequence of this proposed rule, and this action will not have a significant impact on a substantial number of small entities. We have therefore concluded that this action will have no net regulatory burden for all directly regulated small entities.

*D. Unfunded Mandates Reform Act (UMRA)*

This action does not contain any unfunded mandate as described in UMRA, 2 U.S.C. 1531–1538, and does not significantly or uniquely affect small governments. The action imposes no enforceable duty on any state, local or tribal governments or the private sector. The costs involved in this action are imposed only by voluntary participation in a federal program.

*E. Executive Order 13132: Federalism*

This action does not have federalism implications. It will not have substantial direct effects on the states, on the relationship between the national government and the states, or on the distribution of power and responsibilities among the various levels of government. Although Executive Order 13132 does not apply to this proposal, the EPA has consulted with states

through the Association of State and Territorial Solid Waste Management Officials during the development of this proposal.

*F. Executive Order 13175: Consultation and Coordination with Indian Tribal Governments*

This action does not have tribal implications as specified in Executive Order 13175. The EPA has concluded that this proposal will have no new tribal implications, nor would it present any additional burden on the tribes. It will neither impose substantial direct compliance costs on tribal governments, nor preempt tribal law. Accordingly, Executive Order 13175 does not apply to this action.

*G. Executive Order 13045: Protection of Children from Environmental Health Risks and Safety Risks*

The EPA interprets Executive Order 13045 as applying only to those regulatory actions that concern environmental health or safety risks that the EPA has reason to believe may disproportionately affect children, per the definition of “covered regulatory action” in section 2-202 of the Executive Order. This action is not subject to Executive Order 13045 because it does not concern an environmental health risk or safety risk

*H. Executive Order 13211: Actions Concerning Regulations that Significantly Affect Energy Supply, Distribution, or Use*

This action is not subject to Executive Order 13211, because it is not a significant regulatory action under Executive Order 12866.

*I. National Technology Transfer and Advancement Act (NTTAA)*

This rulemaking does not involve technical standards.

*J. Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations.*

The EPA believes the human health or environmental risk addressed by this action will not have potential disproportionately high and adverse human health or environmental effects on minority, low-income or indigenous populations.

The underlying RD&D rule requires any RD&D permit to include such terms and conditions at least as protective as the criteria for municipal solid waste landfills to assure protection of human health and the environment, and this proposal does not reopen or otherwise change that requirement. Therefore, the EPA finds that the human health or environmental risk addressed by this action will not have potential disproportionately high and adverse human health or environmental effects on minority, low-income or indigenous populations.

**List of Subjects in 40 CFR Part 258**

Environmental protection, Municipal landfills, Reporting and recordkeeping requirements,  
Waste treatment and disposal.

Dated: October 30, 2015.

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Gina McCarthy,

Administrator.

For the reasons set forth in the preamble, the EPA proposes to amend 40 CFR part 258 as follows:

**PART 258—CRITERIA FOR MUNICIPAL SOLID WASTE LANDFILLS**

1. The authority citation for part 258 continues to read as follows:

Authority: 33 U.S.C. 1345(d) and (e); 42 U.S.C. 6902(a), 6907, 6912(a), 6944, 6945(c) and 6949a(c), 6981(a).

**Subpart A-General**

2. Revise § 258.4(e)(1) to read as follows:

**§ 258.4 Research, development, and demonstration permits.**

\* \* \* \* \*

(e) \* \* \*

(1) The total term for a permit for a project including renewals may not exceed twenty-one (21) years; and

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